



# Net Metering in Michigan

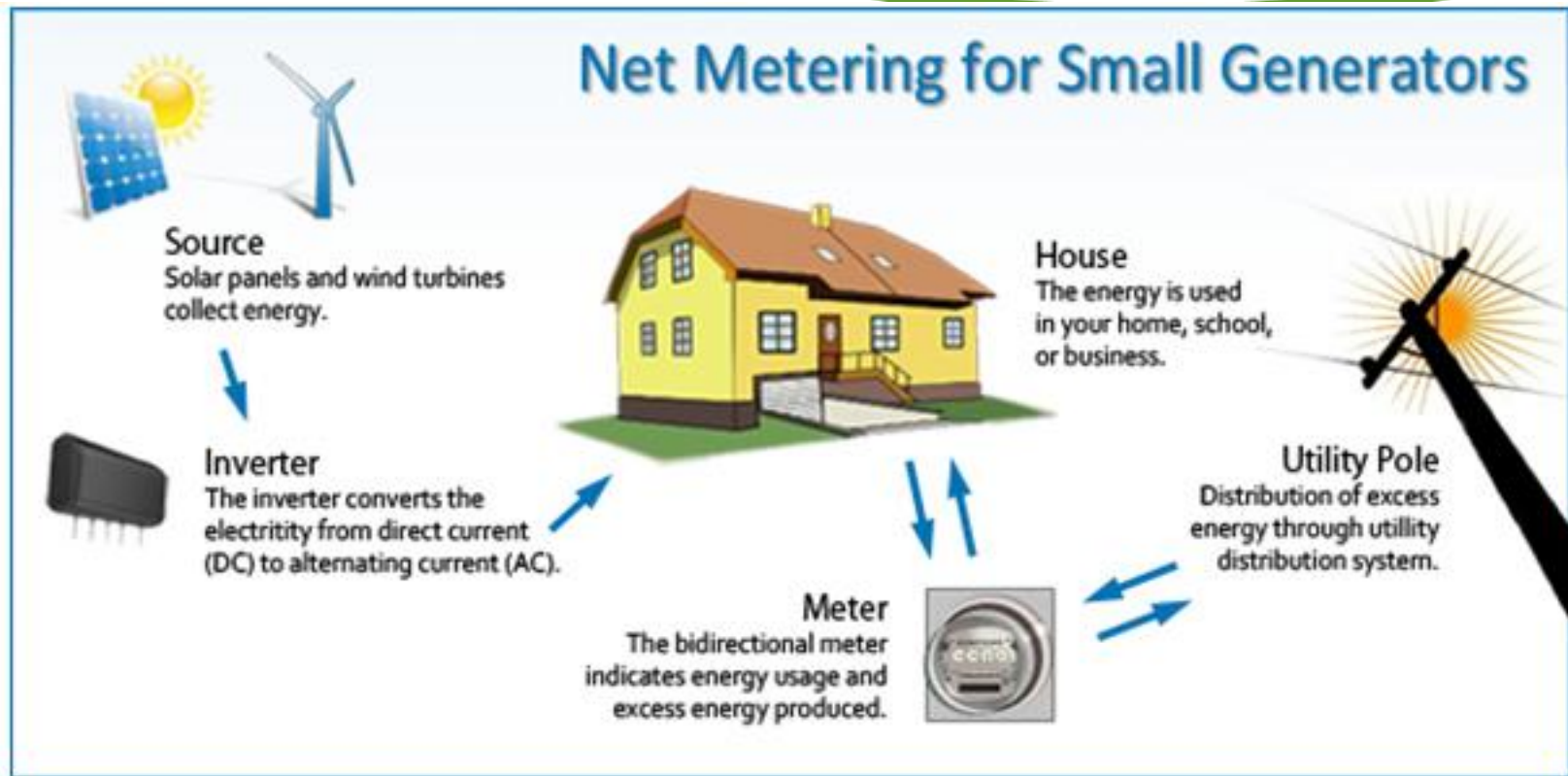
June 23, 2012

Michigan Energy Fair



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# Net Metering



# Net Metering

- Billed for Net Usage

$$\frac{\text{ELECTRICITY FROM GRID} - \text{(ELECTRICITY SENT TO GRID)}}{\text{NET USAGE}}$$

- Per law signed in October 2008, State government has established a statewide program



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# The Past

# The Current

- Voluntary

- Mandated by law

- Low Interest

- Awareness

- Complicated

- Net Metering on bill

- Inconsistent

- Standardized



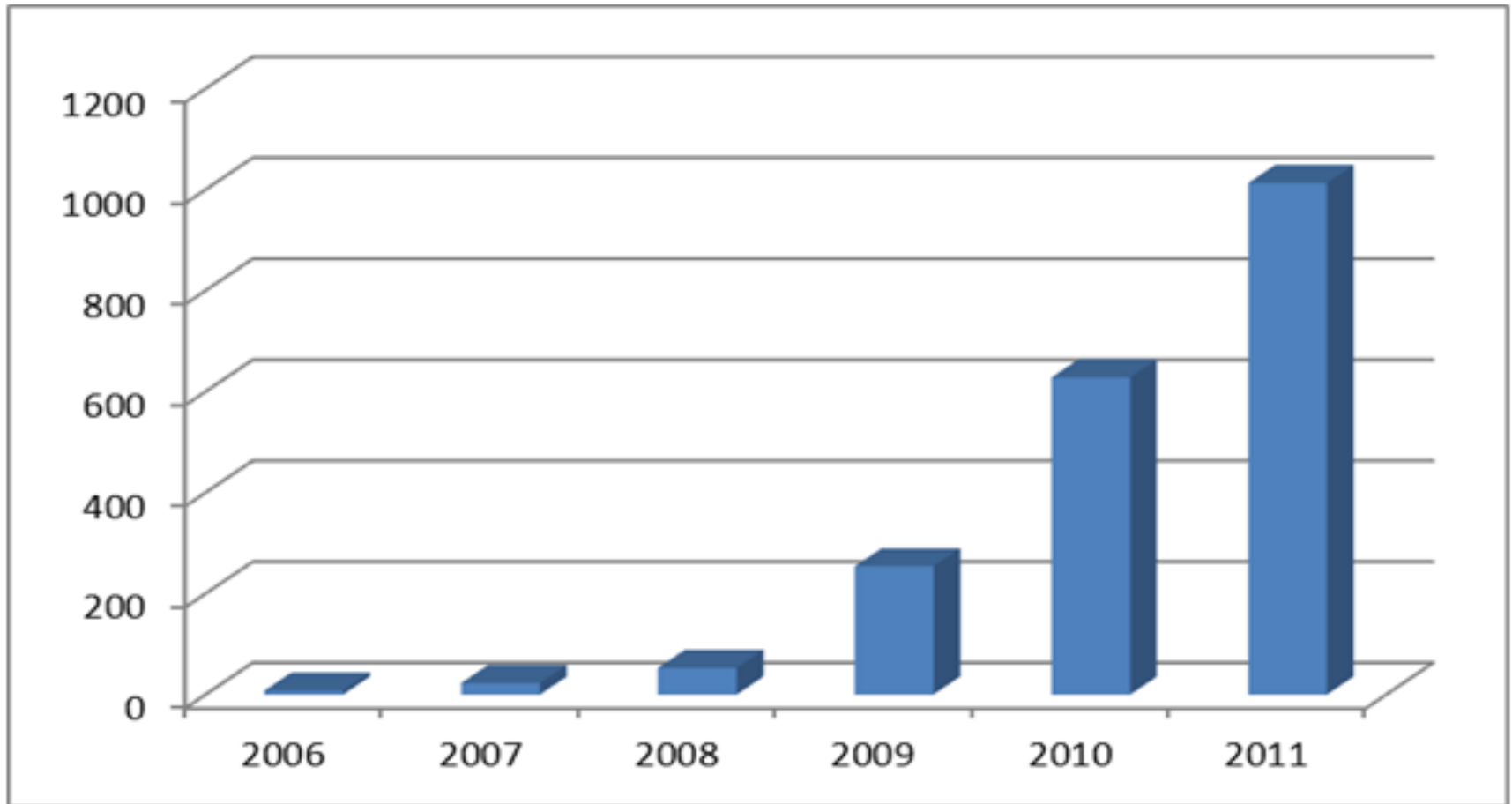
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Company	Category 1 Participation (No. of Customers)	Category 1 Nameplate Generation (kW)	Category 2 Participation (No. of Customers)	Category 2 Nameplate Generation (kW)
Alger Delta	13	39		
Alpena	19	54		
Cherryland	23	64		
Cloverland	28	87		
Consumers Energy	153	652		
Detroit Edison	585	4,483	4	128
Direct Energy	1	xx		
Great Lakes Energy	42	173		
Homeworks Tri-County	8	29		
Indiana Michigan (AEP)	24	96		
Midwest	16	55		
Ontonagon	14	49		
Presque Isle	19	51		
Thumb	5	11		
Uppco	38	118		
We Energies	16	56		
WPSC	6	16		
Xcel	0	0		
<b>Total</b>	<b>1,009</b>	<b>6,033</b>	<b>4</b>	<b>128</b>
Source: 2011 Net Metering Reports Case U-15787				



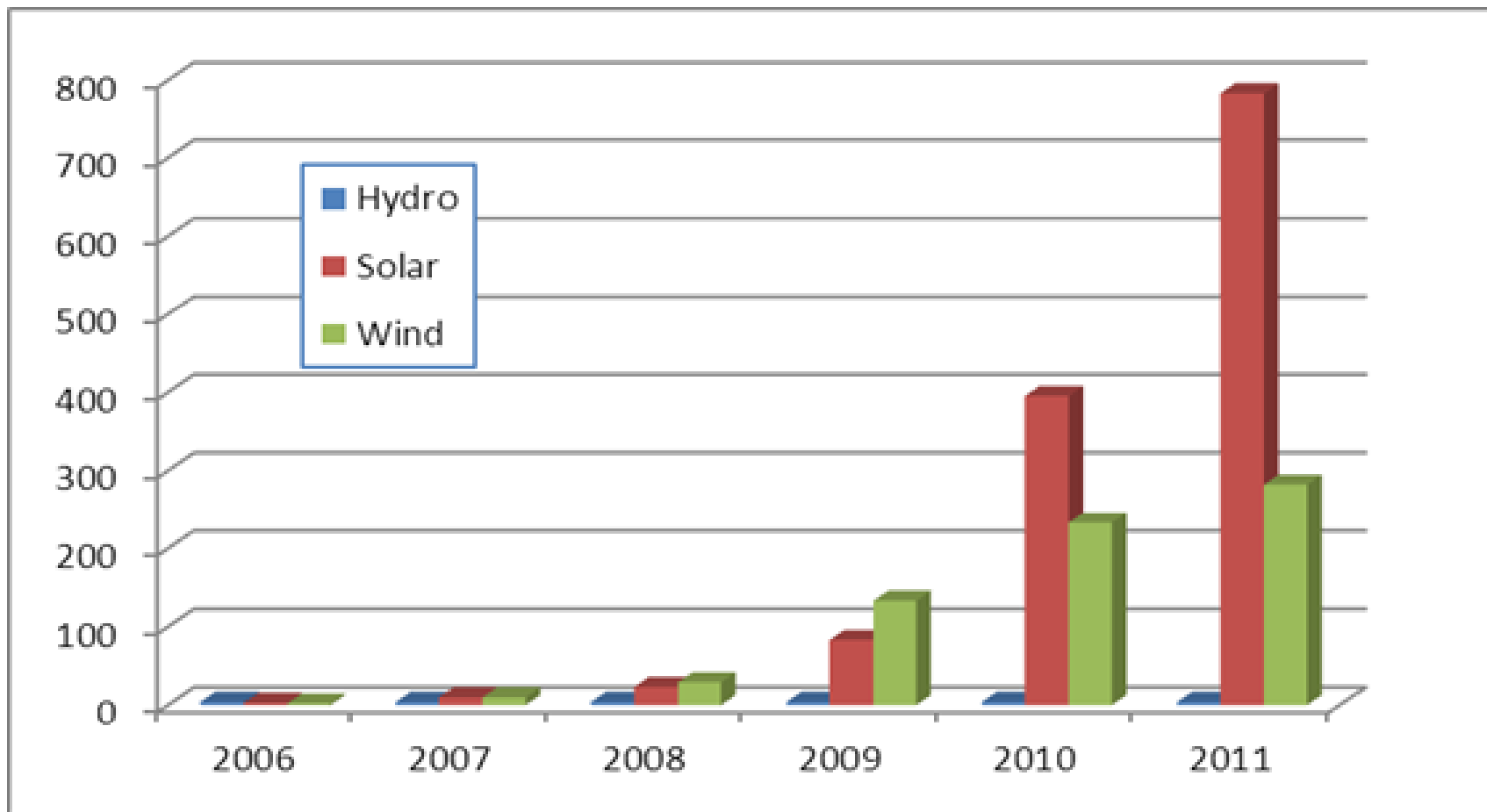
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# Number of Customers

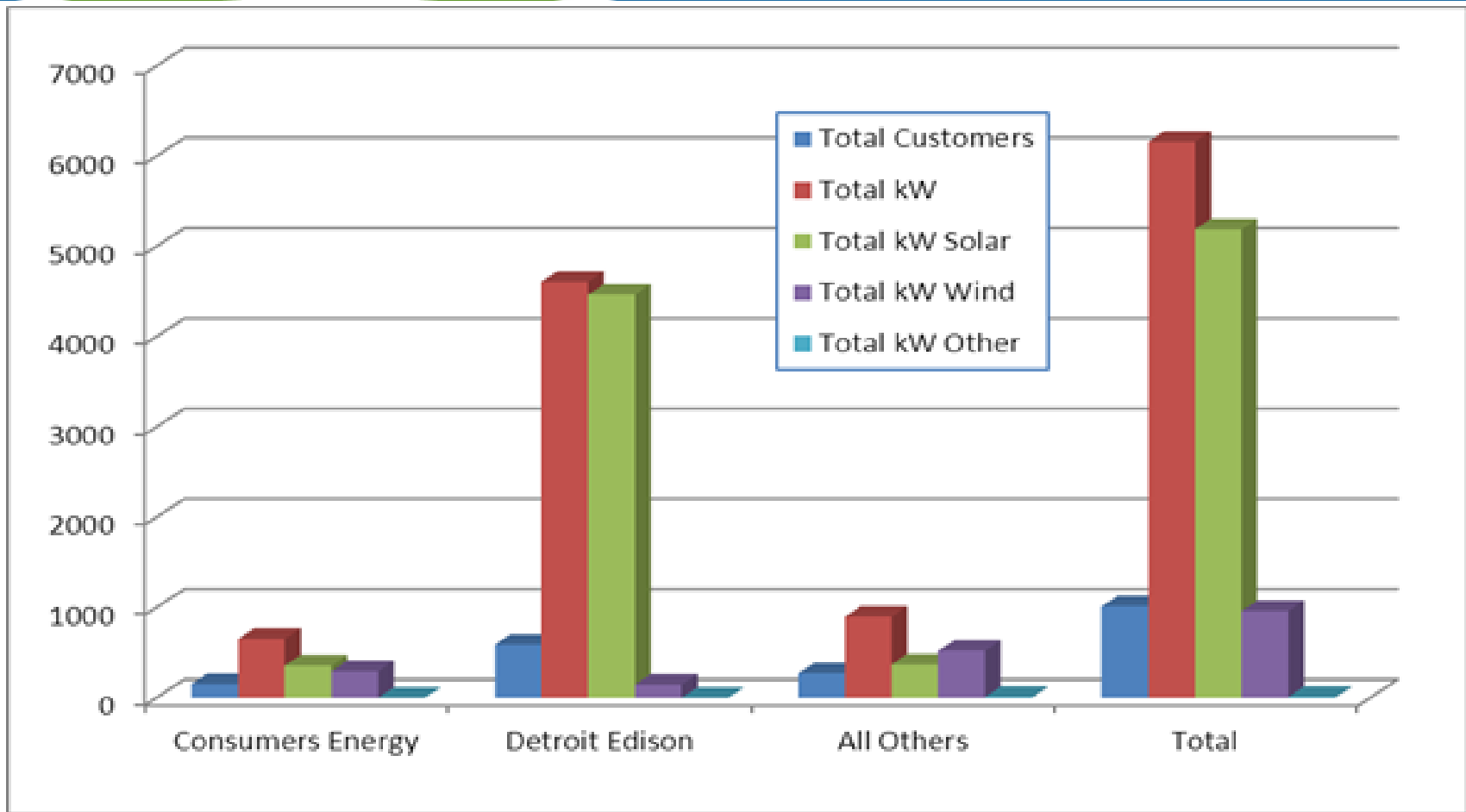


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# Installations by Technology



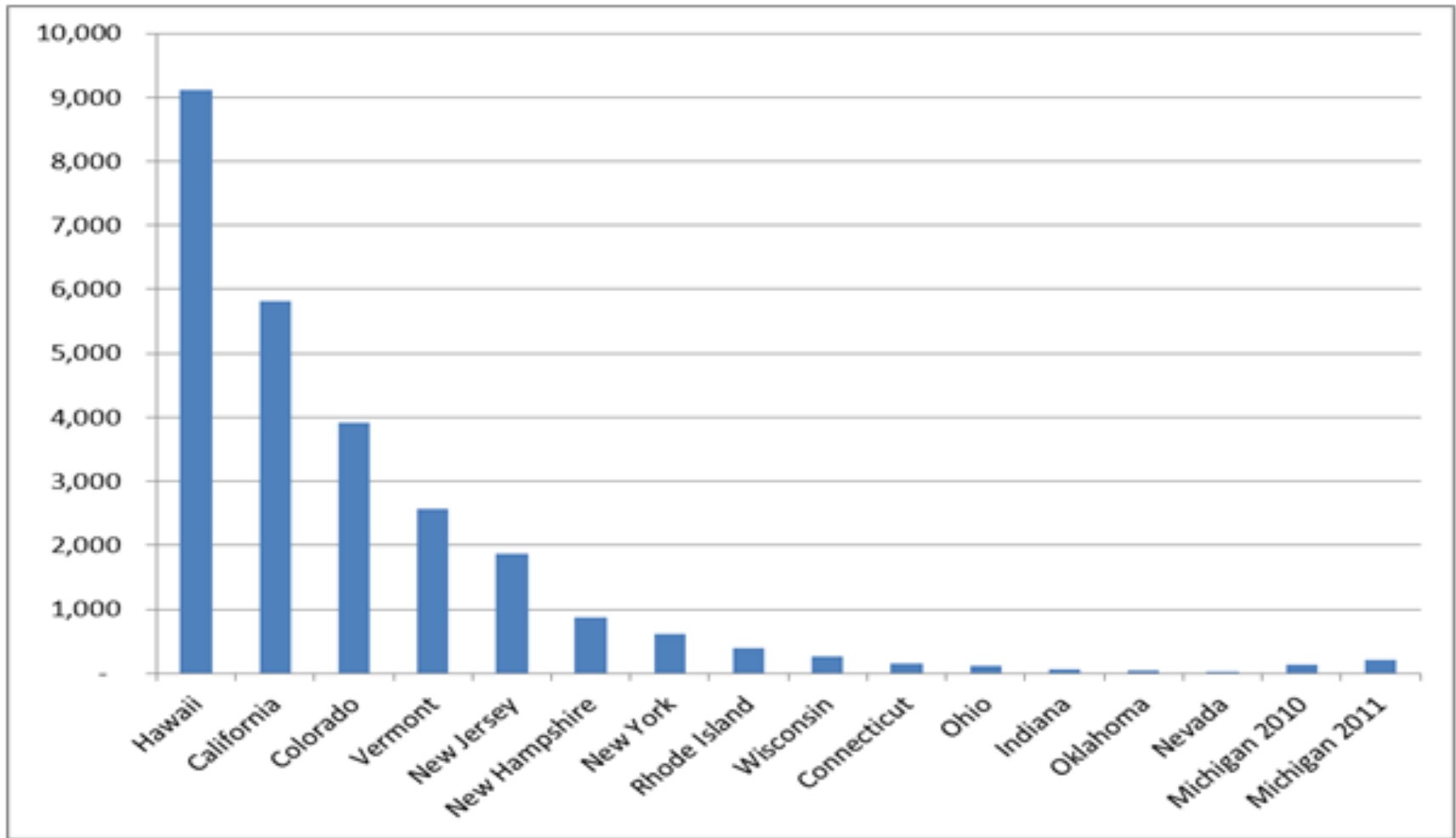
# Installed Capacity kW and Number of Customers



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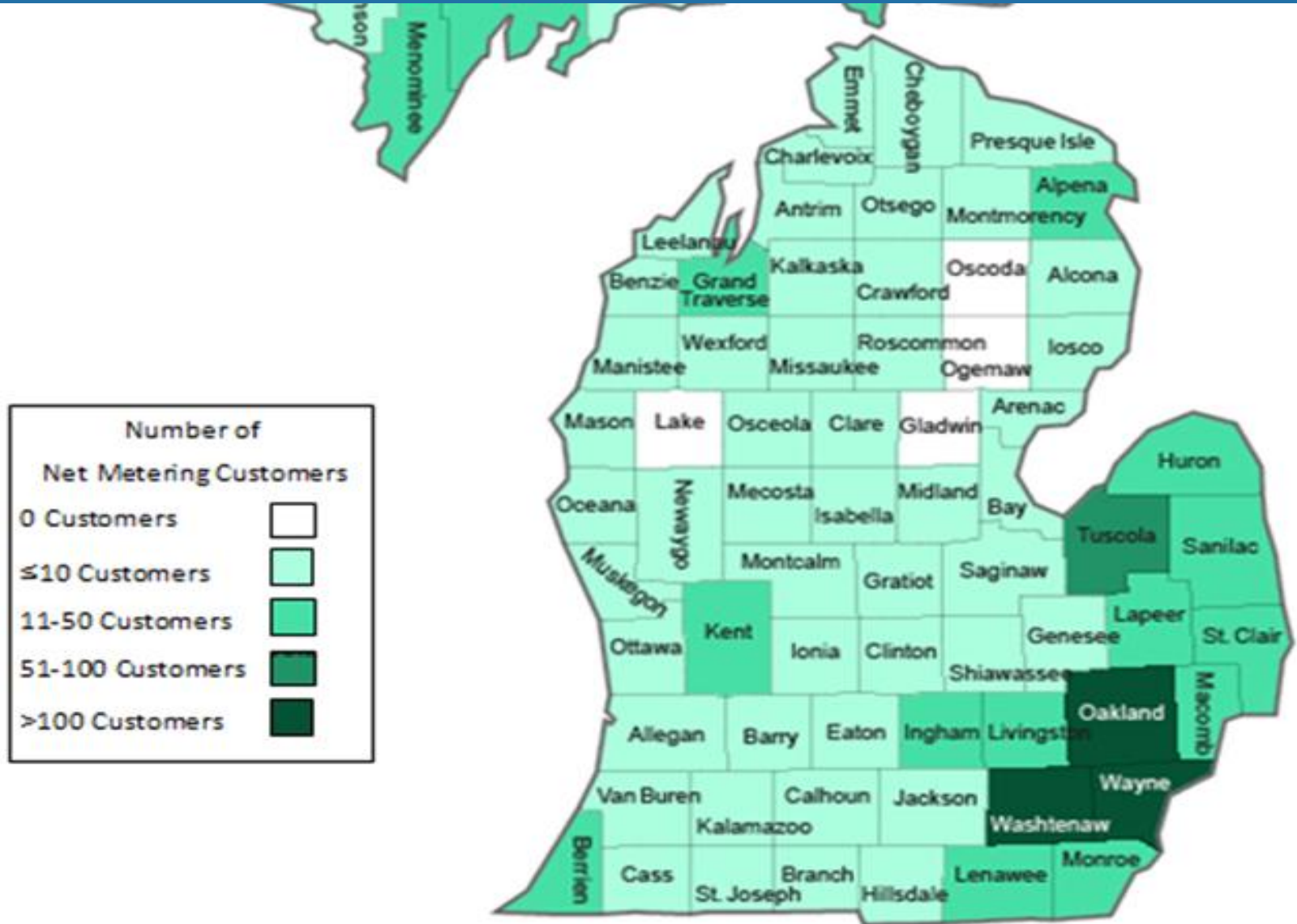


# Participation in Different States

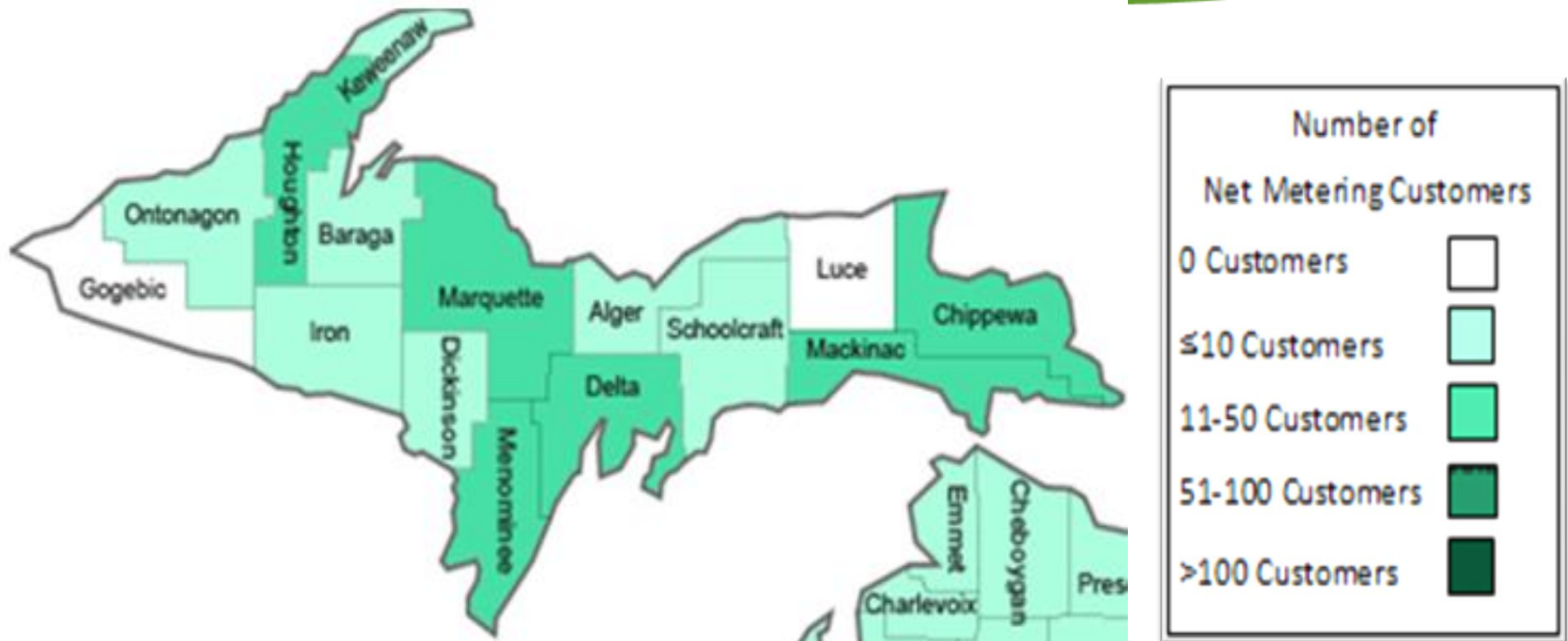


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# Locations by County



# Locations by County





Standardized by Size

# True Net Metering

- $\leq 20$  kw generation
- \$25 fee is required
- If an updated meter is required it will be provided by utility (usually)
- CR the full retail rate for all excess kwh
- No interconnection costs



# Modified Net Metering

- >20 kw to 150 kw generation
- CR the generation portion of rate
- No standby charges

# Category Three

- Methane Digester
- >150 to 550 kw
- Standby charges applied



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# Restrictions of Net Metering

- Limited participation
  - .5% Category One
  - .25% Category Two
  - .25% Category Three
- Limited Generation





# Interconnection

Linking the generating facility to the utility's electric delivery system (grid)



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# Interconnection

- Category One: 20 kw and under
- Category Two: >20 kw to 150 kw
- Category Three: >150 kw to 550 kw
- Category Four: >550 kw to 2 MW
- Category Five: >2 MW



# Interconnection Fees

	Application review	Engineering review	Distribution study	Distribution upgrades	Testing & inspection
Category 1	\$75	\$0	\$0	\$0	\$0
Category 2	\$100	\$0	Actual or maximum approved by commission	Actual or maximum approved by commission	Actual or maximum approved by commission
Category 3	\$150	\$0	Actual or maximum approved by commission	Actual or maximum approved by commission	Actual or maximum approved by commission
Category 4	\$250	Actual or maximum approved by commission	Actual or maximum approved by commission	Actual or maximum approved by commission	Actual or maximum approved by commission
Category 5	\$500	Actual or maximum approved by commission	Actual or maximum approved by commission	Actual or maximum approved by commission	Actual or maximum approved by commission



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# Update to Net Metering and Interconnection

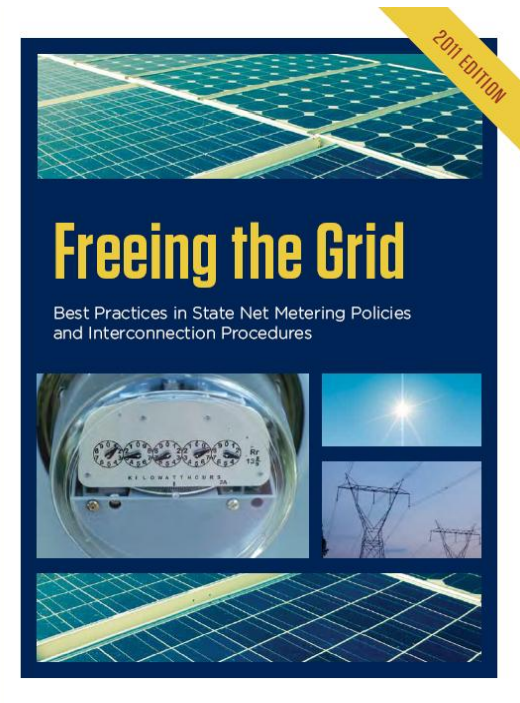
# Scorecard – UPDATE

## Net Metering

F 2007	F 2008	B 2009	A 2010	A 2011
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## Interconnection

D 2007	D 2008	C 2009	C 2010	C 2011
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